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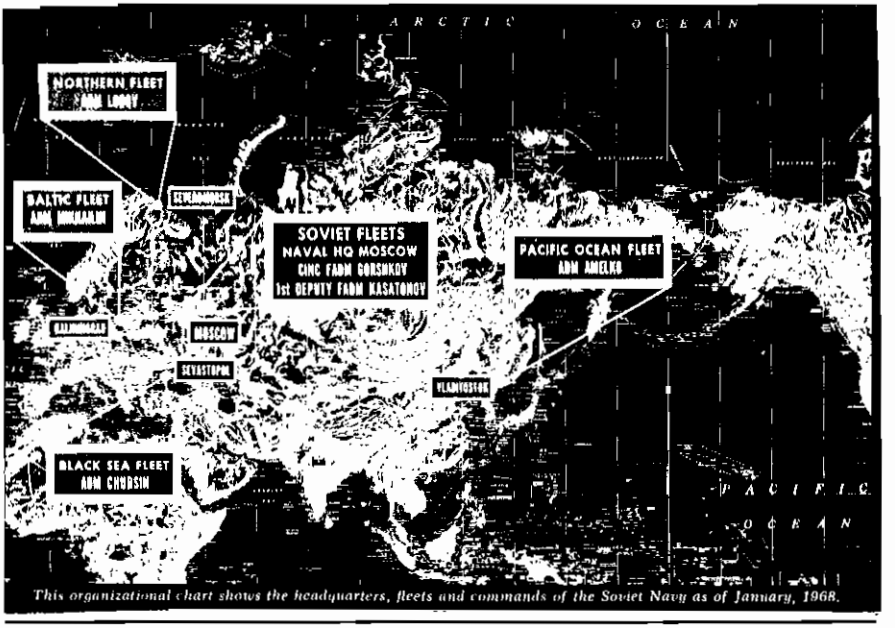
The Development of Soviet Naval Science (Excerpts)

Sergei G. Gorshkov
Navy of the U.S.S.R.



This organizational chart shows the headquarters, fleets and commands of the Soviet Navy as of January, 1968.

THE DEVELOPMENT OF SOVIET NAVAL SCIENCE

(Excerpts)

by

Admiral of the Fleet Sergei G. Gorshkov, Commander in Chief of the Navy of the U.S.S.R., Hero of the Soviet Union

(The Soviet Navy has grown dramatically since World War II, and Soviet ships now are deployed to waters where they never were seen before. Until recently, there was little douht that the navy was, in fact, an offshore extension of the army. Incongruously, and apparently because the Soviet Navy remains a distant second to the U.S. Navy, some anthorities have concluded that it operates as a defensive force. One who wonld disagree with this assessment is Soviet Admiral of the Fleet Sergei G. Gorshkov, Commander in Chief of the Navy of the U.S.S.R. The following article has been extracted from "The Development of Soviet Naval Science," by Admiral Gorshkov, which was pnblished in February 1967 in the 50th Anniversary issue of *Morskoy Sbornik* (Naval Digest). Naturally, Admiral Gorshkov may hoast and perhaps overstate his navy's capabilities to some extent. Nevertheless, his description of the development of the modern Soviet Navy is pertinent, and the reader will draw his own conclusions on the Soviet Navy's role today. Ed.)

Organizational chart courtesy of *Navy, The Magazine of Sea Power*

> No one is as dependent on economic conditions as is the Army and the Navy. Armaments, composition, organization, tactics, and strategy, depend primarily on the stage of production reached at some particular moment in time, and on the means of communication.
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> --F. Engels

Soviet naval science has followed a long and tortuous path in its development. . . . Given conditions in which the national economy was dislocated and desolated, the legacy the young Republic of the Soviets received from Tsarist Russia, what was required was indeed a titanic effort on the part of Party organizations, on the part of many thousands of Soviet workers and engineers, of Navymen, in order to repair combatant ships and put them in commission, to rebuild naval bases, to train command cadres. Along with this went the development of a system of opinions on methods for using fleet forces in the armed struggle at sea--the development of a new Soviet naval science.

This was required in the interests of protecting the first, and at that time the only, workers and peasants state in the world, of protecting the Leninist peace-loving policy of the young Land of the Soviets, a policy which was taking shape on the ruins of the old world, of the grandiose construction of socialism even while encircled by the imperialist powers. In order to create a bright future it was necessary to provide reliable protection for the country against aggression, to make not only our land, but our maritime boundaries, which stretch for tens of thousands of kilometers, impregnable. With the level of development of the industrial base, and the state of the country's economy during the first years of the establishment of our state taken into consideration, we were forced to make such weapons as would make it possible for the fleet to carry out, as it were, missions of limited scope concerned with repulsing possible enemy attacks from the sea. These weapons then were modernized old warships, and subsequently, torpedo cutters as well. Along with this went the broad-scale work of strengthening shore defenses, and the acquisition of our first experience in building destroyers and submarines, and learning how to handle them.

The characteristics of the ships and aircraft then at the disposal of our fleet limited the fleet's ability to carry out combat missions at long distances from its bases, and for a long time imposed on the fleet the role of one of the local defense arms. It must be said that bases the fleet could use were few in number.

All of these factors had a definite effect on the initial stage of development of Soviet naval science.

> Since we are in no way committed to the creation of a fleet for aggressive purposes, we must create, and we have created in recent years, a powerful defensive fleet, one which is coordinated with the coastal defenses and with naval aviation.*

With the real military threat, the economic capabilities of the country, and the limited technical base all taken into consideration, naval thought, basing itself on the Marxist-Leninist methodology, studied and generalized the experiences of the Civil War and of World War I, and sought for more effective methods of combat utilization of those forces and weapons referred to in fleet instructions. These were precisely the factors which were of primary influence on the creation of that theoretical base used to indoctrinate our command cadres of that time, the future admirals, the commanders of fleets and of large forces and combined forces,

*From a speech by the Chief of the MS RKKA [Naval Forces, Workers and Peasants Red Army], First Flag Officer 1st Rank V.M. Orlov, at the Extraordinary XIVth Congress of Soviets. *Morskoy Sbornik*, No. 2, 1937, p. 9.

the commanding officers of combatant ships and units, the political workers. This was the theoretical base used to develop the unity of views on the use of available forces and weapons, without which any successful combat operation is unthinkable.

Our naval thinking is developing new fleet tactics and principles for the operational art, even endeavored to use the wealth of combat experience available to the fleets of the great sea powers creatively.

The formative period for Soviet naval forces can be characterized by bold searching and suggestions of new forms and methods for conducting combat operations at sea, by seeking for ways in which to make more effective use of fleet forces which had limited combat capabilities. This was also a period in which the struggles between the various points of view on fundamental questions of construction and combat utilization of fleet forces abounded.

The so-called "small war" theory was most widespread and recognized in the mid-1920's, and, in accordance with that theory, the main fleet forces were considered to be torpedo cutters and coast artillery. The adherents of this theory assumed that these forces, in consort with the ground forces and aviation, would be able to carry out all basic missions involved in coast defense. They saw a higher form of coordination in the concentrated strike against the main force of the enemy fleet in their own coastal area, one which had been determined in advance, with mine and artillery positions prepared well in advance. Thus, the limited operating range, and the comparatively light striking power of the fleet of that time was to be compensated for by the irresistibility of great numbers of strikes against an enemy in one's own coastal area, an area which had been determined in advance (even though the strength of each unit individually was not enough, the simultaneous strikes would be strong enough).

Going on simultaneously would be searches, and other, more active forms of the utilization of forces, including as well those for operations along the enemy shores, hitting his fleet bases, making landings, and disrupting sea lines of communications.

There were, at the time, other views with regard to the role and place of the fleet in the Armed Forces, as there were with respect to how the fleet would be used in time of war, and in accordance with which the main body of the fleet would be composed of powerful surface forces, capable of carrying on singly combat with enemy naval forces on the open sea.

The views of the adherents of the building of a large surface fleet were out of touch with the material and technical base available to our country, even though those views were in fact responsive to the general trends in developments in the fleets of the large naval powers, and were, therefore, unrealistic. In a way, the theoretical basis for these views stemmed from the fact that the study of the strategic principles of large-scale battles in a naval war was a major subject in the programs of the educational institutions, even though this was contrary not only to real combat capabilities, but to the practice of combat training for the fleets, which developed methods for carrying out combat missions with limited forces, as well.

Therefore, there were frequent discussions and disputes with regard to various theories of naval science, including the bourgeois theories, in the Naval Academy and in the schools, as well as among the fleet command cadres. And despite the fact that these discussions did, to some extent, lead naval cadres away from resolving inherent questions of development and use of fleet forces in a war, their frequent occurrence made it necessary to understand the need for a country to have the strongest

possible fleet.

Soviet Navymen, just like the many generations of their predecessors, the progressive activists of the Russian Fleet, cannot, and do not want to be satisfied with their Motherland occupying the position of a second-rate seapower. They are well aware of the importance of seapower for strengthening the international prestige of our country, to its military power, to the defenses of the immense maritime boundaries, and to the protection of the state interests of the Soviet Union on the sea and oceans, hence are constantly seeking ways in which to strengthen its military might.

It was in the searches for these paths, in the struggle with conceptions which were at odds with life, with the views and trends in naval theoretical thought, that the first combat regulations for the fleet were born. These contained a summary of the long scientific works of Soviet military specialists, a generalization of the experience in combat training of forces, units, and individual combatant ships, and they taught the views of probable enemies. The regulations, oriented toward limited forces engaged primarily in coastal operations, showed a preference for the active form of armed struggle, a striving to carry out even defensive missions by decisive attack. Initiative, the use of new tactical moves not known to the enemy, was encouraged in every possible way. Candidly speaking, these tactical outlines received the greatest development in succeeding combat regulations and have become their own sort of tradition, one on which command cadres in our fleet are indoctrinated today.

A branch of military science, new in principle, that of operational science, began to develop at the beginning of the 1930's, not only in the fleet, but in other branches of the Armed Forces as well. However, the long indoctrination of command cadres in defensive theories of the "small war" of the period during which the fleet was being restored, had a substantial effect on further development of the Navy in the prewar years, on the views held in connection with the operational and strategic use of the Navy. The ingrained habit of thinking about defensive categories in the strategic plan, and the coastal scales of operations, made itself felt even when the economic might of the country, and its scientific achievements, had opened up new avenues for fleet development, even when the imperative need to reconsider earlier views with respect to military leadership, with respect to the role, place, and capabilities of the future fleet, arose.

The following example is extremely revelatory in this regard. Submarines, which were quite good for the time, and which were to operate successfully in the Great Patriotic War, were built in the 1930's. Nevertheless, in the prewar period this longest range arm of the fleet, one with a considerable combat capability for carrying on offensive operations at great distances from its own bases, and even into enemy coastal waters, was suggested for use primarily for the defense of our own shores.

The result was that in the first period of the Great Patriotic War the use of submarines for maintaining constant monitoring of regions through which, at least in our opinions, it was mandatory for enemy warships and cargo ships to pass, was widespread. The submarines, upon entering these sea areas of limited size, the so-called stations, had to wait for the enemy in order to attack with torpedoes. If no enemy was observed after some period of time the submarines changed stations and assumed what was, in essence, a passive role. Along with this, and for purposes of conducting a meaningful search for the enemy in those areas in which his appearance was most probable, the submarines were condemned in advance to a long and often completely hopeless wait. It was only as the war progressed

that we studied ways in which to use submarines more actively.

The orientation of our fleet forces in a manner such that they would, for the most part, operate in coastal areas also was reflected in the decisions made with respect to their strategic utulization, and particularly in the distribution of new construction submarines among the theatres of combat operations.

We can note yet another circumstance. The importance, and the need for amphibious landings was recognized in the prewar years. The formation of naval infantry units and forces had begun in the fleets on the eve of the war, but the building of landing craft was not envisaged. It was believed possible to carry out amphibious landings, even large-scale ones, at short distances away from own bases with the various types of warships and cutters available in the fleet by simply refitting them as necessary.

During the Great Patriotic War, when the requirement for amphibious landings actually proved to be great, the fleet was not properly prepared to meet the requirement, and had to improvise and overcome many difficulties which would have not arisen if landing craft, built in time, had been available.

At the end of the 1930's the Land of the Soviets embarked on a program of creating an oceangoing fleet, capable of carrying out missions at considerable distances from its home bases. The most powerful battleships were laid down, and the fleets added new cruisers, destroyers, long-range submarines, and other types of warships.

However, the lag between our theoretical military thought and the tempos at which fleet forces were growing, the adherence to already ingrained views as to their use close to the coast, views which had been developed during the period when fleet restoration was going on, remained as a sort of brake, delaying the growth of the fleet's combat might. This showed itself most clearly in the fact that military thought of that time believed that the only means for achieving the goal of the armed struggle at sea was action against the main forces of the enemy fleet, which were, primarily, dispositions of powerful gun-firing surface ships.

Using the experience of World War I, military thought concentrated its main attention on seeking ways in which to achieve power supremacy over the enemy by using long-range naval artillery, but it sidestepped the question of how to ensure that the guns could be brought to bear in battle, and how combat missions at considerable distances from own shores could be carried out once consideration had been given to the changing weapons and conditions governing the armed struggle at sea.

So long as the fleets of the potential aggressors of that time consisted primarily of large, gun-firing ships, which had to carry out the primary missions in the armed struggle at sea, we believed that only a strong surface fleet would be able to carry on the counterstruggle with the naval enemy successfully.

Yet at that time, our own, as well as foreign, military thought nevertheless clearly underestimated by far the growing combat capabilities of aviation, which had, by the beginning of the war, already become a mighty strike force in the armed struggle at sea. Aviation, as before, and just as if it were in the embryo stage of development, was assigned a role which was simply that of a primary reconnaissance force providing support for surface ship operations. This was one of the main reasons why we did not then build aircraft carriers with the capacity for carrying aircraft which would take an active part in fleet combat operations. Nor did we have fighter aircraft which were able to provide cover for ships at sea at long distances from own shores. The surface ships themselves were weak in AA armament, and we felt the consequences of

this weakness with particular severity even while the war was going on.

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In fact, the use of squadrons of surface ships proved to be wholly dependent on the capabilities of fighter aviation, while the areas in which the squadrons could operate were, in essence, and as before, determined in advance by the coastal zone within the limits of which the ships could be protected against air attack by fighters. Thus, even the large surface fleet which had been planned for on the eve of the war was in fact doomed to operate only in its own coastal waters, under the protection of shore-based fighter aviation.

This could not have happened if our military doctrine at the end of the 1930's had been oriented toward complete utilization of such fleet qualities as great mobility, constant readiness for action, great striking power, and the ability to strike heavy blows against the enemy at long distance from own bases for a long period of time. These qualities of naval forces were not evaluated in time. Even when the country had created a large oceangoing fleet the basic strategic principles of its use were not revised, but remained, in essence, those which had prevailed in our Armed Forces during the fleet's restoration period.

At the same time, it should be emphasized that the defensive conceptions which were at the base of the views with respect to the role and place of the fleet in the Armed Forces, as well as with respect to the strategic and operational utilization of its forces in the armed struggle, while they exerted a definite deterrent effect on the development of active forms of fleet use, did not inhibit developments in fleet tactics. Inherent in Soviet military doctrine of that time was an offensive spirit which permeated the views on fleet actions in the tactical field, including those used in carrying out defensive missions. Demanded of the fleet was action and decisiveness in the struggle with the enemy in a complex battle situation.

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Through all of our instructions, manuals, and regulations runs the requirement that the search for the enemy be persistent, and that he be attacked resolutely, regardless of the conditions pertaining in the situation. The peacetime fleet combat training emphasis was on working out the tactics of the naval battle; on the organization of the joint attack by gun-firing ships, torpedo cutters, aviation, and submarines against an enemy formation of surface ships on the open sea, and against mine and artillery positions established in restricted waters, and in the approaches to naval bases. Worked out as well were the so-called shore actions, which embodied, according to contemporary concepts, strikes by fleet forces against ports, naval bases, or formations of warships in enemy coastal waters.

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The Great Patriotic War was a serious test, one in which not only the combat might of the Soviet Fleet, the moral and political qualities of Navymen, but the maturity of our theoretical military thought, and the degree to which Soviet naval science had been updated, were subjected to an overall trial by fire.

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The bitter struggle which developed in the maritime theatres exceeded all prewar forecasts in scale and scope. The Soviet VMF was called upon to carry out two missions simultaneously, the result of the situation which developed. The first was to carry on the struggle with enemy forces at sea, forces which were stubbornly striving to retain the initiative and, from the first days of the war, to destroy our fleet forces; and, second, to ensure the operational sta-

bility of the maritime flanks of the fronts, and to cooperate with the ground forces in defense and on offense; this became the primary mission, and remained so throughout the war. The conditions under which the armed struggle took place in the initial period of military operations grew constantly more complex because of our evacuation of the main naval bases on the Baltic and Black Seas while under attack by enemy ground forces, and as a result of this evacuation, the sharp restrictions imposed on the basing system.

. . . During the war our fleet not only acquired a wealth of combat experience, but even worked out what was, in substance, a new tactic, the theory and practice of preparing for and conducting naval operations. Yet, at the same time, the continental character of the last war, in which the main force opposing the Soviet Army and Navy was the ground forces of Fascist Germany, too left its imprint on the content of our naval science.

The specific conditions of the struggle which developed forced our Armed Forces to concentrate their main strength so as to destroy the enemy's main assault formations along a front which was over 2,000 kilometers long. Naturally, the main burden in this struggle rested on the shoulders of the Soviet Army. All of the other branches of the Armed Forces, including the Navy, directed their efforts to supporting and cooperating with the ground forces, the operations of which, in the final analysis, determined the issue of the war as a whole. In carrying out this part of the mission assigned it, the fleet presented itself as a powerful strike force, capable of bringing about a sharp change in the situation in the maritime belt in which ground forces were operating, considerably simplifying in this way the conditions for carrying out operational and strategic missions. It is sufficient to recall the defense of Leningrad and Tallin, of Odessa and Sevastopol, of the northern Caucasus and of the Soviet polar area, where the sailors made a worthy contribution to the enemy's rout. The well-deserved fame of the sailors, participants in the battle around Moscow, along the banks of the Volga, and along other of the land fronts, has been forever entered in the combat annals of unfading feats of arms of the Soviet people.

The bold and decisive actions by the fleets, the river and lake flotillas, the operational and tactical amphibious landings, the artillery and aviation support given them from the sea, the accomplishment of troop transportation, and the carrying out of other combat missions, are examples of how the VMF cooperated in the grandiosely scaled offensive operations which the ground forces carried on at high tempos. The VMF's overall support of the ground forces from the sea played an important role in liberating the territory in the south of our country, along the Baltic, in the Soviet polar area, of Rumania and Bulgaria, as well as of northern Norway, from the German Fascist invaders. It was precisely because of the active, decisive, and bold actions of the fleets and naval river flotillas that our ground forces were given reliable protection against attack from the sea throughout the war.

There is no question that all of this provides a valid basis for recognizing that cooperation with the ground forces on defense and offense was the primary mission of our fleet in the last war. At the same time, recognition of these views as basic ones for the postwar period as well, without taking into consideration the changes which have occurred in the arrangement of forces in the international arena, has strengthened the dominant position of the defensive tendencies in the views on the strategic use of the fleet, which received dissemination during the first postwar years, and has, to an even greater extent than before, bound it to the coastal

zone controlled by the ground forces. Thus, was the fleet's role of simply being an assistant to the ground forces strengthened.

Further strengthening these mistaken views was the trend which developed in the scientific work undertaken to generalize the experience of the Soviet Armed Forces in the Great Patriotic War. Primary attention here was given to military historical research on the operations and land battles which were most grandiose in scope, and to the results thereof. Here fleet participation was not decisive. Because of these very same views, the combat experiences of the fleets of the great naval powers were considered to be inadequate, since we did not consider them to be very instructive.

However, the arrangement of forces in the international arena after the termination of World War II underwent basic changes, and the situation was very much different from what it had been on the eve of the war. Whereas the imperialist camp had been opposed by the lone socialist state, the Soviet Union, the early postwar years saw the rise, formation, and continued consolidation of the concord of socialist states, the great camp of socialism. If the earlier and primary threat to the safety of our country had been posed by the continental powers, the military strengths of which had been primarily drawn from the ground armies, after World War II the socialist camp was faced by the armed forces of the aggressive military blocs, headed by the traditional naval powers, special importance in the armed forces of which had, for a long time, attached to the Navy.

During the first postwar decade the fleets of this coalition were built up with great intensity, far and away surpassing in their striking power the other branches of the armed forces. The tendency to assign to the Navy the role of one of the primary strategic weapons in a future war was becoming increasingly clear in views on the combat utilization of the Navy. Candidly speaking, this tendency remains, even today, and over one-third of the total strategic nuclear missile potential of the American armed forces is concentrated in the atomic powered submarines and aircraft carriers in the United States Navy. It can be assumed that this concentration will increase to 50 percent by 1970.

What this means is that the threat of an attack on our country from the oceanic lines has increased sharply. Therefore, the interests of strengthening our country's defensive capabilities, of modernizing the Armed Forces, demanded a considerable increase in the combat might of the Soviet Navy.

With the end of the war the Land of the Soviets was able to build up its economic might at a great rate. Soviet science made grandiose discoveries which created all the prerequisites for a new stage in fleet construction.

The practical application of new discoveries, their inclusion in contemporary means for carrying on the armed struggle would give the fleet a capability for carrying out offensive strategic missions in a contemporary war, to sail the ocean expanses, and the readiness to engage the fleets of the leading naval powers which had openly turned to intensive preparation for a new war against the Soviet Union. But our country needed a definite period of time in order to make reality of these possibilities, the more so since industry, and particularly naval shipbuilding, had taken substantial losses during the war years.

Moreover, military theory, continuing to rest on the earlier material-technical base, had not immediately discerned the new ways in which fleet developments were evolving. Consequently, no basic changes occurred, at first, in the views on the missions and methods of using its forces in a future war. The art of fighting the naval battle, as usual, reduced itself to the organiza-

tion of coordinating the various types of forces in accordance with the dominate position of the squadron, with the ability to act only in own coastal areas. The gun-firing surface ships were considered to be the primary forces. But lacking cover against air attack, they were able to repnlse enemy attacks only when at sea adjacent to own coasts.

In other words, any military clash, whether an offensive or defensive battle with more or less large formations of surface sbips, or operations against convoys, as well as when carrying ont our own amphibious landings or repulsing those by the enemy, was to be accomplished by our forces striking the main blow.

The organization and the carrying out of a strike such as this, at the time, and as a rule, predetermined as well the methods with which all types of fleet forces with the capacity to take part would be used.

As usual, the process of combat training then gave an important place to the organization of the battle in a mine-artillery position, that is, in sea areas with strong mine fields, which conld be provided with covering fire from long-range shore artillery. And at that time this was no accident, but was the direct consequence of the weakness of the fleet's AA defenses, which, in turn, flowed from incorrect views with respect to the operational utilization of surface forces for defensive pnrposes in coastal engagements.

As a result of the strengthening of defensive tendencies there was, in the practice of combat training, a natural attempt to have own forces operate so as to cause enemy warships to enter the mine fields, and to put them in an unfavorable position for carrying on the battle, and then to use torpedo cutters, aviation, shipboard and shore artillery, to destroy those forces.

Of course, operations such as these could take place when repulsing strikes by the enemy's fleet at shore objectives, as well as in the course of anti-landing operations, and therefore carrying them out in the course of combat training was given specific attention. But this undeviating attempt to conduct every engagement with surface ships by launching the main strike in own coastal waters, and mandatorily by the various types of fleet forces in an area designated in advance, and often in the same identical area, could not be justified. It inevitably lent itself to the establishment of a pattern in the combat utilization of fleet forces, engendered sketchiness, and stifled initiative on the part of the commanders, the organizers of the battle.

This it was, first and foremost, which caused the lag in the level of naval science behind the possibilities which had made their appearance in connection with the developments in technology and the growth in the country's economic might. Scientific achievements, providing new stimnli for activization of fleet operations at the end of the war, and for increasing its combat capabilities, were not noted in time because of a certain stagnation and formalism in naval theory.

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So long then as the conduct of the struggle with the enemy fleet at sea, as well as the cooperation with ground forces, envisaged single combat with enemy surface forces first and foremost, Soviet military thought continued to assign the role of the primary strike force to the surface warship. This stipulation was admittedly incontestable. Any other interpretation of the role of large gun-firing surface ships was, at that time, considered to be incorrect.

Along with this, and out of the experience of the Great Patriotic War, there was evolving a well-founded conclusion with respect to the growing role of submarines in the struggle at sea. In the first decade after the war analysis of the combat operations of submarines in

the Soviet fleet, as well as in foreign fleets, was the basis for an intensive seeking after new forms and methods for using this type of force. This was precisely when new submarine tactics were developed, as were methods for controlling them and principles for coordinating with other types of fleet forces during an operation.

The ever increasing attention to solutions to the problems of combat utilization of submarines, and of the struggle with enemy transportation at sea, was dictated by other, important, considerations, specifically those stemming from the fact that immediately after the war the aggressive imperialist countries began to put together military blocs, to encircle the countries in the socialist camp with a network of military bases and beachheads. They enunciated a course which was one of preparing for a new war, and began to openly carry out their aggressive policy under the slogan "throw back Communism." Therefore, the disruption of the ocean lines of communications, the special arteries feeding the military and economic potentials of those countries, has continued to be one of the most important of the fleet's missions.

During this same period, and as a result of the tremendous developments in science and technology which enabled us to place at the service of protecting the Motherland the latest achievements in the field of nuclear weapons, radioelectronics, and atomic energy, there matured the prerequisites for the execution of a technical revolution in the Armed Forces. The Soviet Union already had nuclear weapons at its disposal. Missiles which could be supplied to aircraft, warships, and fleet shore units made their appearance, as did new combat and other types of equipments, based on the latest achievements in the field of radio and electronics.

These principally new means for the armed struggle forced many of the world powers, including the Soviet Union, to review the role and place of the various types and branches of forces in modern war. Naturally, there arose the question of what path future construction in our fleet was to take, given conditions under which nuclear weapons had become the primary means for waging the armed struggle in all of its spheres.

The largest of the imperialist countries initially took the path of creating fleet strike forces based on aircraft carrier forces, with the idea in mind of assigning to each ship a division of jet aircraft which would serve as the carriers of nuclear bombs, and which would have a long flying range. Carrier strike forces were primarily designed to deliver nuclear strikes against strategic objectives deep within the territory of the U.S.S.R.

Later on the fleets of the more developed of the capitalist countries began to add atomic powered submarines armed with ballistic missiles.

Soviet theoretical military thought proceeded from different premises. From the experience of World War II we knew that the sun had set on battleships as far back as the Battle of Midway in 1942.

Analysis of the new combat capabilities of the various types of fleet forces at the dawn of the era of nuclear missiles led us to the conclusion that the process of the sun setting on aircraft carriers as well had begun, and that the process was irreversible. And although carriers were, at that time, powerful, and would, for some time to come, still be able to pose a serious threat to the safety of our Motherland, it was, nevertheless, clear that seeking for ways in which to use them as a primary strike force in the armed struggle at sea had no future.

We were never in doubt that the replacement of long-range guns in surface ships with artillery using nuclear ammunition, and even missiles, would

render them any less vulnerable, or less suited for use in a nuclear war as a primary fleet strike force in the struggle at sea.

Time has confirmed the correctness of these views. Not one of the sea powers is building heavy surface ships with atomic guns. So far as the aircraft carriers are concerned, they have, in recent years, appeared repeatedly in the form of a primary strike force; in the war in Korea, during the Suez adventure, in many of the military conflicts in the Middle East, and now they are playing this same role in the dirty war being waged by the United States in Vietnam. The fleets of the imperialist countries, with the help of aircraft carriers, are attempting to carry out primary missions in local wars against the peoples of the underdeveloped countries, countries which have no modern means for carrying on an armed struggle at their disposal. True, the west is, as usual, assigning important missions in a nuclear missile war as well to aircraft carriers. Some people, here and now, yielding to the hypnosis of this modern experience in the combat utilization of fleets, if one may be permitted to so characterize it, continue to fight for the construction of aircraft carriers. But at the same time this loses sight of the important fact that the combat capabilities of aircraft carriers, even the atomic powered ones, cannot stand comparison with the strike capabilities of submarine-air forces. And, analyzing the ways in which to develop the Soviet Fleet, or the fleets of the other naval powers, we are all the more persuaded of the correctness of the course we have selected in its construction.

The age-old struggle between old concepts, and new ones which had not yet been proven in use, made its harsh appearance in the course of the discussions which developed with respect to ways in which to further develop our fleet in the mid-1950's. Some of the views expressed at the time were extremely "leftist." We had among us, unfortunately, some extremely influential "authorities," who felt that with the appearance of atomic weapons the Navy had completely lost its importance as a branch of the Armed Forces. In their opinion, all of the primary missions in a future war could, supposedly, be carried out quite without the participation of the fleet, even in those cases when to do so would require deployment for combat operations on the broad sea and ocean expanses. A frequent assertion of the time was that single missiles, placed on land launchers would be sufficient for destroying strike dispositions of surface warships, and even submarines.

In contrast with settled views expounded during the first postwar years, on the importance of joint operations of fleet and ground forces as one of the fleet's primary missions, were the expressed opinions which wholly negated the need for fleet coordination with ground forces conducting operations along the sea coast. At the same time, it was felt that the ground forces, since they had nuclear weapons, were in no need of support from the sea because they could, with own forces, and with movement, overcome water obstacles and, in case of need, even take on an enemy fleet which would be trying to strike from the sea.

It was believed that amphibious landings too had completely lost their importance, and that missions carried out by such landings earlier could, in a nuclear war, be carried out by air drops, or by afloat, armored ground forces.

It is obvious that the propagation of these opinions, along with the still existing defensive tendencies, not only hampered a determination of the correct directions further fleet developments were to take, but even held up the forward movement of our theoretical military thought.

In the mid-1950's, in connection with the revolution in military affairs, the Central Committee of our Party

defined the path of fleet development, as well as the fleet's role and place in the system of Armed Forces in the country. The course taken was one which required the construction of an oceangoing fleet, capable of carrying out offensive strategic missions. Submarines and naval aviation, equipped with nuclear weapons, had a leading place in the program. Thus, there began a new stage in the development of the fleet and of its naval science.

Realization of the latest achievements in science and production, and the creation, on this base, of what were, in principle, new weapons for the armed struggle made it possible, in a short period, to bring about a radical change in the technical base, and, in essence, to create a qualitatively new type of Armed Force, our oceangoing fleet, in which submarine forces, aviation, surface warships, and other types of forces developed harmoniously. This was the authorized source for the creation of a balanced Navy,* capable of successfully conducting combat operations under differing circumstances.

For the first time in its history our Navy was converted, in the full sense of the word, into an offensive type of long-range armed force. Along with the Strategic Missile Forces the Navy had become the most important weapon the Supreme Command had, one which could exert a decisive influence on the course of an armed struggle on theatres of military operations of vast extent.

Now our fleet has colossal operational and strategic capabilities, which can in no way be compared with the capabilities of any fleet of the prenuclear epoch, no matter how powerful. But this potential must be brought to bear in full measure in the struggle with a strong naval enemy. It is to precisely this requirement that the development of naval science has been subordinated in recent years.

The fleet, which for a long time could only carry on combat operations in seas directly adjacent to own coasts, and which had had experience in a continental war, carrying out primarily tactical-operational missions, mainly in coordination with ground forces, now sailed the broad expanses of the oceans, and acquired the capacity to carry out strategic missions in the struggle with the strongest of naval enemies. This brought about a fleet requirement for new tactics, for a new operational art, and for a theory covering the strategic utilization of its forces.

Initially, when the first models of new combat equipment made their appearance in the fleet arsenal, our scientific thought attempted to use those provisions of the operational art and tactics which they already had, adapting them to the new conditions. But this transition period in the development of naval science was extremely short. The more new weapons for the armed struggle the fleet received, mastering them quickly during intensive combat training, the more clearly the fleet felt the need to develop principally new means and methods for the combat utilization of its forces, the more fully the changes taking place in the fleet's material-technical base were considered, and, consequently, the better they responded to the requirements of nuclear war. The budding revolution in military affairs has now spread to all fields of naval science as well. Useful conclusions were arrived at in the course of breaking down obsolete views and notions, in the course of active and bold scientific searching for ways and methods of using what were, in principle, new fleet forces and weapons in combat, in the process of a critical analysis of the established

*By a well-balanced fleet we mean a fleet which, in composition and armament, is capable of carrying out missions assigned to it, not only in a nuclear war, but in a war which does not make use of nuclear weapons, and is also able to support state interests at sea in peacetime.

theory of naval science, of the experience of the armed struggle and of combat training available to our fleet. Quite a few new, original, and extremely effective methods for conducting the armed struggle with a powerful naval enemy were found.

The first thing to occur was liquidation of the gap existing between the combat capabilities of weapons and the tactics of using them in combat. The theory of naval science was freed of its clearly obsolete conceptions, and was completely reoriented to support the practical requirements of the fleets in carrying out strategic and tactical-operational missions corresponding to the new combat capabilities.

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Grounded on the new material-technical base, the theory of operational utilization of fleet forces gives full consideration to the increase in the fleet's role in attaining the strategic goals of the struggle at sea with a powerful enemy, as well as to the capability the fleet has attained for direct combat operations against enemy bases and territory over vast distances.

Contemporary naval tactics--the most mobile and flexible branch of naval science--have at their disposal a vast arsenal of methods and means for carrying out the various types of missions in differing situations. They provide for the use of submarines carrying missiles and torpedoes, strike aviation, surface warships of various classes, units of naval infantry, and other types of fleet forces on independent operations, as well as jointly with other branches of the Armed Forces.

With the growth in the economic might of the Soviet Union have come ever expanding interests in the seas and oceans, so new requirements have been imposed on the Navy to protect those interests against the encroachments of the imperialists.

Soviet naval science, which is based on a uniquely scientific methodological base, that of dialectical materialism, is completely respondent to the fleet's material-technical base, and provides for its requirements in contemporary methods of struggle in a nuclear missile war, in carrying out the missions of protecting the state interests of the U.S.S.R. on the seas and oceans. All of these means and methods of the armed struggle are regularly checked out in the course of combat training, are refined and concretized by virtue of mastering new equipments, and are enriched by the experience gained from using weapons on fleet maneuvers and exercises.

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Navymen have a clear picture of the primary requirement of the present day, that of maintaining all branches of naval science at the level of the latest achievements of science and technology, in condition to provide for the complete realization of all combat possibilities incorporated in the latest models of weapons and their delivery systems. Navymen see their responsible and honorable mission as one of providing for unity of theory and practice, of untiring seeking for new, ever more modern forms and methods for carrying on combat operations at sea.

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